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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/070,431 | 04/09/2002 | Hans-Herrmann Kleinschnittger | P21998 | 1508 |
| 7055 | 7590 | 07/01/2004 | | |
| GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191 | | | EXAMINER BRYANT, DAVID P | |
| | | | ART UNIT 3726 | PAPER NUMBER |
| DATE MAILED: 07/01/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/070,431 | Applicant(s) KLEINSCHNITGER ET AL. | |
| | Examiner David P. Bryant | Art Unit 3726 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) 8, 14 and 20-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-13, 15, 16 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>061702</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Species A (readable on claims 1-7, 9-13, 15, 16, and 19) in the reply filed on April 6, 2004, is acknowledged. The traversal is on the ground(s) that the examiner has failed to meet the criteria of showing a serious burden if the restriction requirement were not required. This is not found persuasive because burden is inherently shown when distinct claimed species of invention are identified. Applicant has presented three separate embodiments of the present invention; the different elements of each embodiment that make it distinct from the others require a divergent search, whether it be somewhat or overlapping or not.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8, 14, and 20-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

There is no support in the specification for the dimensional limitations recited in claims 4 (“within 25%”), 7 (“0.5 mm”), 10 (“between 1 and 30 mm”), and 11 (“between 1 and 20 mm”).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 9-13, 15, 16, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

In lines 8-9, it is recited “fiber reinforced plastic material structured to have a thermal expansion behavior of the at least one processing element.” The claim previously recites that “the fittings are composed at least mainly of ceramic material” (i.e. meaning that the processing element is made of ceramic material, since it is claimed here that the base body is made of a FRP). It is unclear how a component made of FRP exhibits the thermal expansion behavior of a ceramic component. It is further indefinite how the FRP could be “structured” to have such a thermal expansion behavior. The specification is completely silent as to the process in which the FRP is “structured to have” this thermal expansion behavior. Also, the phrase “structured to have a thermal expansion behavior” itself is indefinite. Is applicant attempting to claim that the thermal expansion behavior of the two materials is identical, or that the base body simply exhibits some of the thermal expansion behavior of the processing element.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-6, 9-11, 15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirchner (U.S. Patent No. 4,620,675).

Claims 1, 2, and 19: Kirchner teaches a method for producing fittings for a pulp refiner (column 1, lines 6-10), in which the fittings include at least one base body 17 and at least one processing element 28 (Figure 1), wherein the processing elements are composed of ceramic material (column 5, lines 49-53), the method comprising:

separately producing the at least one processing element 28 and the at least one base body 17 (as shown in Figure 3, these components are separately formed), and

joining together contact surfaces of the at least one processing element and the at least one base body (as shown in Figure 3, the separately formed components are shown joined together in box 47),

wherein the base body is made of a fiber reinforced plastic material (glass-fiber reinforced plastic material, as disclosed in column 4, lines 44-46; and column 5, lines 39-40).

The last limitation in claim 1, “structured to have a thermal expansion behavior of the at least one processing element” is considered to be met by Kirchner, since the base body and processing elements of Kirchner are composed of the same materials as those claimed and disclosed by applicant (i.e. glass-fiber reinforced plastic and ceramic).

Claim 4: As explained above, since the base body and processing elements of Kirchner are composed of the same materials as those claimed and disclosed by applicant (i.e. glass-fiber

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reinforced plastic and ceramic), Kirchner is considered to meet all of the claimed limitations pertaining to thermal expansion characteristics.

Claims 5 and 6: See column 5, lines 14-36.

Claims 9-11: See column 4, lines 46-52. Note that the height and width of the grooves is 0.062 inch, which equates to 1.57 mm.

Claim 15: See Figure 3 and column 3, lines 15-16.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 7, 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchner (U.S. Patent No. 4,620,675).

Claim 3: In column 5, lines 14-18, Kirchner discloses that the base body 17 may be fabricated from any material, such as but not limited to fiberglass. It is well known in the art that many fiber reinforced plastic materials provide similar to equivalent advantageous characteristics. Carbon fiber reinforced plastic materials are often used interchangeably with glass fiber reinforced plastics. The selection of either of these FRPs is deemed to have been obvious to one of ordinary skill in the art at the time the invention was made. Further, it is noted that it has been

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held that the selection of a known material on the basis of its suitability for the intended use is a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 7: Based on the thickness disclosed by Kirchner of 0.07 inch (1.78 mm) for the base body 17, and the relative depicted thickness of the adhesive layer 43 in Figure 2, the adhesive layer appears to be on the order of 0.5mm or less. Regardless, the specifically claimed thickness of 0.5 mm is deemed to have been an obvious matter of choice, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 12 and 13: The examiner takes Official Notice that processing elements are known to have either an essentially smooth surface or an essentially porous surface. The selection of either is deemed to have been an obvious matter of choice to one of ordinary skill in the art, depending primarily upon the material to be refined.

Claim 16: This claim recites a processing element in the shape of an annular segment. The examiner takes Official Notice that processing elements in the form of either rings or annular segments are well known in the art, and the selection of either would have been obvious to one of ordinary skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Bryant whose telephone number is (703) 308-1859. The examiner can normally be reached on Monday-Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "David P. Bryant". The signature is fluid and cursive, with a large initial "D" and "B".

David P. Bryant
Primary Examiner
Art Unit 3726

dpb
June 28, 2004